What is claimed is:

- 1. A method of treating myelodysplastic syndromes, lymphomas and leukemias, and solid tumors in a mammal which comprises treating the mammal in need of such treatment simultaneously, concurrently, separately or sequentially with pharmaceutically effective amounts of (a) a FLT-3 inhibitor, or a pharmaceutically acceptable salt or a prodrug thereof, and (b) a histone deacetylase inhibitor, or a pharmaceutically acceptable salt or a prodrug thereof.
- 2. The method according to claim 1 for treating acute myeloid leukemia (AML).
- 3. The method according to claim1, wherein the FLT-3 inhibitor is a staurosporine derivative.
- 4. The method according to claim 3, wherein the staurosporine derivative is selected from the compounds of formula,

or

$$(R_1)_{m} \xrightarrow{\theta} \underset{10}{\overset{8}{\text{NR}_5}} \overset{O}{\underset{10}{\text{N}}} \overset{O}{\underset{11}{\text{N}}} \overset{A}{\underset{2}{\text{N}}} \overset{A}{\underset{2}{\text{N}}} \overset{A}{\underset{2}{\text{N}}} \overset{A}{\underset{3}{\text{N}}} \overset{A}{\underset{2}{\text{N}}} \overset{A}{\underset{3}{\text{N}}} \overset{A}{\underset{2}{\text{N}}} \overset{A}{\underset{11}{\text{N}}} \overset{A}{\underset{11}{\text{N}}}$$

$$(R_{1})_{mg} = \begin{cases} 8 & X & 6 & NR_{5} & O \\ 10 & B & 11 & N & N & 1 \\ 11 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 12 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 13 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 14 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 15 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 10 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 10 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 10 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 10 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 10 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 & N & 1 \\ 11 & N & 1$$

wherein R₁ and R₂, are, independently of one another, unsubstituted or substituted alkyl, hydrogen, halogen, hydroxy, etherified or esterified hydroxy, amino, mono- or disubstituted amino, cyano, nitro, mercapto, substituted mercapto, carboxy, esterified carboxy, carbamoyl, N-mono- or N,N-di-substituted carbamoyl, sulfo, substituted sulfonyl, aminosulfonyl or N-mono- or N,N-di-substituted aminosulfonyl;

n and m are, independently of one another, a number from and including 0 to and including 4;

n' and m' are, independently of one another, a number from and including 1 to and including 4;

 R_3 , R_4 , R_8 and R_{10} are, independently of one another, hydrogen, an aliphatic, carbocyclic, or carbocyclic-aliphatic radical with up to 29 carbon atoms in each case, a heterocyclic or

heterocyclic-aliphatic radical with up to 20 carbon atoms in each case, and in each case up to 9 heteroatoms, an acyl with up to 30 carbon atoms, wherein R₄ may also be absent;

or R₃ is acyl with up to 30 carbon atoms and R₄ not an acyl;

p is 0 if R_4 is absent, or is 1 if R_3 and R_4 are both present and in each case are one of the aforementioned radicals;

R₅ is hydrogen, an aliphatic, carbocyclic, or carbocyclic-aliphatic radical with up to 29 carbon atoms in each case, or a heterocyclic or heterocyclic-aliphatic radical with up to 20 carbon atoms in each case, and in each case up to 9 heteroatoms, or acyl with up to 30 carbon atoms;

R₇, R₆ and R₉ are acyl or –(lower alkyl) –acyl, unsubstituted or substituted alkyl, hydrogen, halogen, hydroxy, etherified or esterified hydroxy, amino, mono- or disubstituted amino, cyano, nitro, mercapto, substituted mercapto, carboxy,carbonyl, carbonyldioxy, esterified carboxy, carbamoyl, N-mono- or N,N-di-substituted carbamoyl, sulfo, substituted sulfonyl, aminosulfonyl or N-mono- or N,N-di-substituted aminosulfonyl;

X stands for 2 hydrogen atoms; for 1 hydrogen atom and hydroxy; for O; or for hydrogen and lower alkoxy;

Z stands for hydrogen or lower alkyl;

and either the two bonds characterised by wavy lines are absent in ring A and replaced by 4 hydrogen atoms, and the two wavy lines in ring B each, together with the respective parallel bond, signify a double bond;

or the two bonds characterised by wavy lines are absent in ring B and replaced by a total of 4 hydrogen atoms, and the two wavy lines in ring A each, together with the respective parallel bond, signify a double bond;

or both in ring A and in ring B all of the 4 wavy bonds are absent and are replaced by a total of 8 hydrogen atoms;

or a salt thereof, if at least one salt-forming group is present.

5. The method according to claim 3, wherein the staurosporine derivative is a staurosporin derivative of formula I,

$$(R_1)_m$$
 $(R_1)_m$
 $(R_2)_m$
 $(R_3)_m$
 $(R_4)_m$
 $(R_4)_m$
 $(R_4)_m$
 $(R_5)_m$
 $(R_2)_m$
 $(R_2)_m$
 $(R_4)_m$
 $(R_4)_m$

wherein

m and n are each 0;

R₃ and R₄ are independently of each other

hydrogen,

lower alkyl unsubstituted or mono- or disubstituted, especially monosubstituted, by radicals selected independently of one another from carboxy; lower alkoxycarbonyl; and cyano; or

R₄ is hydrogen or -CH₃, and

R₃ is acyl of the subformula R°-CO, wherein R° is lower alkyl; amino-lower alkyl, wherein the amino group is present in unprotected form or is protected by lower alkoxycarbonyl; tetrahydropyranyloxy-lower alkyl; phenyl; imidazolyl-lower alkoxyphenyl; carboxyphenyl; lower alkoxycarbonylphenyl; halogen-lower alkylphenyl; imidazol-1-ylphenyl; pyrrolidino-lower alkylphenyl; piperazino-lower alkylphenyl; (4-lower alkylpiperazinomethyl)phenyl; morpholino-lower alkylphenyl; piperazinocarbonylphenyl; or (4-lower alkylpiperazino)phenyl;

or is acyl of the subformula R°-O-CO-, wherein R° is lower alkyl;

or is acyl of the subformula R°HN-C(=W)-, wherein W is oxygen and R° has the following meanings: morpholino-lower alkyl, phenyl, lower alkoxyphenyl, carboxyphenyl, or lower alkoxycarbonylphenyl;

or R₃ is lower alkylphenylsulfonyl, typically 4-toluenesulfonyl;

R₅ is hydrogen or lower alkyl,
X stands for 2 hydrogen atoms or for O;
Z is methyl or hydrogen;
or a salt thereof, if at least one salt-forming group is present.

6. The method according to claim3, wherein the staurosporine derivative is *N*-[(9*S*,10*R*,11*R*,13*R*)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1*H*,9*H*-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl]-*N*-methylbenzamide of the formula (VII):

or a salt thereof.

7. The method according to claim 1, wherein the HDAI compound is a histone deacetylase inhibitor of formula (X)

HO
$$R_1$$
 R_2 R_3 R_4 R_5 R_5 R_4 R_5 R_5 R_5 R_5

wherein

R₁ is H, halo, or a straight chain C₁-C₆ alkyl;

 R_2 is selected from H, C_1 - C_{10} alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, C_4 – C_9 heterocycloalkylalkyl, cycloalkylalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl, -(CH_2) $_nC(O)R_6$, -(CH_2) $_nOC(O)R_6$, amino acyl, HON-C(O)-CH=C(R_1)-aryl-alkyl- and - (CH_2) $_nR_7$;

 R_3 and R_4 are the same or different and independently H, C_1 - C_6 alkyl, acyl or acylamino, or R_3 and R_4 together with the carbon to which they are bound represent C=O, C=S, or C=NR₈, or R_2 together with the nitrogen to which it is bound and R_3 together with the carbon to which it is bound can form a C_4 – C_9 heterocycloalkyl, a heteroaryl, a polyheteroaryl, a non-aromatic polyheterocycle, or a mixed aryl and non-aryl polyheterocycle ring;

R₅ is selected from H, C₁-C₆ alkyl, C₄ – C₉ cycloalkyl, C₄ – C₉ heterocycloalkyl, acyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl, aromatic polycycle, non-aromatic polycycle, mixed aryl and non-aryl polycycle, polyheteroaryl, non-aromatic polyheterocycle, and mixed aryl and non-aryl polyheterocycle;

 n_1 , n_2 and n_3 are the same or different and independently selected from 0-6, when n_1 is 1-6, each carbon atom can be optionally and independently substituted with R_3 and/or R_4 ;

X and Y are the same or different and independently selected from H, halo, C₁-C₄ alkyl, NO₂, C(O)R₁, OR₉, SR₉, CN, and NR₁₀R₁₁;

 R_6 is selected from H, C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, cycloalkylalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl, OR_{12} , and $NR_{13}R_{14}$;

 R_7 is selected from OR_{15} , SR_{15} , $S(O)R_{16}$, SO_2R_{17} , $NR_{13}R_{14}$, and $NR_{12}SO_2R_6$;

 R_8 is selected from H, OR_{15} , $NR_{13}R_{14}$, C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, aryl, heteroaryl, arylalkyl, and heteroarylalkyl;

 R_9 is selected from $C_1 - C_4$ alkyl and C(O)-alkyl;

R₁₀ and R₁₁ are the same or different and independently selected from H, C₁-C₄ alkyl, and -C(O)-alkyl;

 R_{12} is selected from H, C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, C_4 – C_9 heterocycloalkylalkyl, aryl, mixed aryl and non-aryl polycycle, heteroaryl, arylalkyl, and heteroarylalkyl;

R₁₃ and R₁₄ are the same or different and independently selected from H, C₁-C₆ alkyl, C₄
- C₉ cycloalkyl, C₄ - C₉ heterocycloalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl, amino acyl, or R₁₃ and R₁₄ together with the nitrogen to which they are bound are C₄
- C₉ heterocycloalkyl, heteroaryl, polyheteroaryl, non-aromatic polyheterocycle or

 R_{15} is selected from H, C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and $(CH_2)_m ZR_{12}$;

 R_{16} is selected from C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, aryl, heteroaryl, polyheteroaryl, arylalkyl, heteroarylalkyl and $(CH_2)_m ZR_{12}$;

 R_{17} is selected from C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, aryl, aromatic polycycle, heteroaryl, arylalkyl, heteroarylalkyl, polyheteroaryl and $NR_{13}R_{14}$; m is an integer selected from 0 to 6; and

Z is selected from O, NR₁₃, S and S(O);

mixed aryl and non-aryl polyheterocycle;

or a pharmaceutically acceptable salt thereof.

- 8. The method according to claim 7, wherein each of R₁, X, Y, R₃, and R₄ is H.
- 9. The method according to claim 8, wherein one of n₂ and n₃ is zero and the other is 1.
- 10. The method according to claim 9, wherein one of n₂ and n₃ is zero and the other is 1.
- 11. The method according to claim 1, wherein the histone deacetylase inhibitor is a compound of the formula (Xa)

HO
$$R_2$$
 R_5 (Xa)

wherein

n₄ is 0-3,

 R_2 is selected from H, C_1 - C_6 alkyl, C_4 – C_9 cycloalkyl, C_4 – C_9 heterocycloalkyl, alkylcycloalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl, -(CH_2)_nC(O) R_6 , amino acyl and -(CH_2)_n R_7 ;

R₅' is heteroaryl, heteroarylalkyl, an aromatic polycycle, a non-aromatic polycycle, a mixed aryl and non-aryl polycycle, polyheteroaryl, or a mixed aryl and non-aryl polyheterocycle

or a pharmaceutically acceptable salt thereof.

12. The method according to claim 1, wherein the histone deacetylase inhibitor is a compound of the formula (Xb):

wherein

 $R_{2'}$ is selected from H, C_1 - C_6 alkyl, C_4 - C_6 cycloalkyl, alkylcycloalkyl, and $(CH_2)_{2-4}OR_{21}$ where R_{21} is H, methyl, ethyl, propyl, or isopropyl, and

 R_5 " is unsubstituted or substituted 1*H*-indol-3-yl, benzofuran-3-yl or quinolin-3-yl or a pharmaceutically acceptable salt thereof.

13. The method according to claim 1, wherein the histone deacetylase inhibitor is a compound of the formula

(Xe)

HO N R1 R18 R18 R2 R3 R4 N-R₂₀
$$N$$
 (Xe)

or a pharmaceutically acceptable salt thereof.

- 14. The method according to any one of claims 1 to 6, wherein the histone deacetylase inhibitor is selected from the group consisting of N-hydroxy-3-[4-[[(2-hydroxyethyl)[2-(1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide, N-hydroxy-3-[4-[[[2-(1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[[2-(2-methyl-1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide, or, in each case a pharmaceutically acceptable salt thereof.
- 15. Use of a combination of (a) a FLT-3 inhibitor and (b) a histone deacetylase inhibitor (HDAI) for treating myelodysplastic syndromes, lymphomas and leukemias, and solid tumors.
- 16. Use according to claim 15 for treating acute myeloid leukemia (AML), colorectal cancer (CRC) or non-small cell lung cancer (NSCLC).
- 17. Use according to claim 15, wherein the FLT-3 inhibitor is -[(9S,10R,11R,13R)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1*H*,9*H*-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl]-*N*-methylbenzamide of the formula (VII):

or a salt thereof and the HDAI is selected from the group consisting of N-hydroxy-3-[4-[[(2-hydroxyethyl)[2-(1H-indoI-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide, N-hydroxy-3-[4-[[[2-(1H-indoI-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[[2-(1H-indoI-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[[2-(1H-indoI-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[[2-(1H-indoI-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[(2-(1H-indoI-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[(2-(1H-indoI-3-yl)ethyl]-amino]methyl]-2E-2-propenamide and N-hydroxy-3-[4-[[(2-(1H-indoI-3-yl)ethyl]-amino]methyl]

(2-methyl-1*H*-indol-3-yl)-ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, or, in each case a pharmaceutically acceptable salt thereof.

- 18. Use of a combination of (a) a FLT-3 inhibitor and (b) a histone deacetylase inhibitor (HDAI) for the preparation of a medicament for the treatment of myelodysplastic syndromes, lymphomas and leukemias and solid tumors.
- 19. Use according to claim 18 for treating acute myeloid leukemia (AML), colorectal cancer (CRC) or non-small cell lung cancer (NSCLC).
- 20. Use according to claim 18, wherein the FLT-3 inhibitor is -[(9S,10R,11R,13R)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl]-*N*-methylbenzamide of the formula (VII):

or a salt thereof and the HDAI is selected from the group consisting of N-hydroxy-3-[4-[[(2-hydroxyethyl)][2-(1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide, N-hydroxy-3-[4-[[[2-(1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[[2-(2-methyl-1*H*-indol-3-yl)-ethyl]-amino]methyl]phenyl]-2*E*-2-propenamide, or, in each case a pharmaceutically acceptable salt thereof.

21. A pharmaceutical composition comprising (a) a FLT-3 inhibitor and (b) a histone deacetylase inhibitor for the treatment of myelodysplastic syndromes, lymphomas and leukemias and solid tumors.

- 22. A pharmaceutical composition according to claim 21 for treating acute myeloid leukemia (AML), colorectal cancer (CRC) or non-small cell lung cancer (NSCLC).
- 23. A pharmaceutical compositon according to claim 21, wherein the FLT-3 inhibitor is [(9S,10R,11R,13R)-2,3,10,11,12,13-hexahydro-10-methoxy-9-methyl-1-oxo-9,13-epoxy-1H,9H-diindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonin-11-yl]-N-methylbenzamide of the formula (VII):

or a salt thereof and the HDAI is selected from the group consisting of N-hydroxy-3-[4-[[(2-hydroxyethyl)[2-(1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide, N-hydroxy-3-[4-[[[2-(1H-indol-3-yl)ethyl]-amino]methyl]phenyl]-2E-2-propenamide and N-hydroxy-3-[4-[[[2-(2-methyl-1H-indol-3-yl)-ethyl]-amino]methyl]phenyl]-2E-2-propenamide, or, in each case a pharmaceutically acceptable salt thereof.